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ON THE AMERICAN SPECIES OF ERVILIA.

BY WM. H. DALL.

Very little attention seems to have been given to the genus *Ervilia*, which is composed of small, rather solid shells which are, in the recent species, frequently brightly colored, concentrically or radially striated or smooth. The soft parts are still unknown though the typical species appears to be common in the West Indies, and the largest known species is found in British and Mediterranean waters. In the forms which are normally concentrically striate or grooved it often happens that some of the specimens have the umbonal portion nearly smooth, the normal sculpture appearing only when the shell is half grown; there are also light modifications of the outline, coming within the range of individual variation. In examining the recent forms of North America and the West Indies for comparison with the fossils, the following were recognized, though the small size of the shells and their general similarity of form renders it necessary to study them under a magnifier with the greatest care and attention in order to grasp the distinctive features.

Ervilia nitens (Mont.) Turton.

This species has the valves somewhat compressed, coarsely, evenly, concentrically grooved, with faint, radial striations on the dorso-posterior surface, both ends somewhat attenuated, the posterior longer and more attenuated, the base evenly arched, the anterior end shorter, higher, with a steeper dorsal slope; the shell rather solid with a robust hinge; the pallial sinus narrow, angular in

front, and reaching beyond the vertical of the beaks, anteriorly. In general the shell is yellowish or bright pink, with occasional brownish rays. It seems to be confined to the Antilles and the southern Florida Keys.

Ervilia subcancellata Smith.

Valves much compressed, both ends somewhat attenuated, the base arcuate and prominent in the middle; the surface concentrically striated and covered with fine, distinct, radial striæ; the pallial sinus reaching to the vertical of the beaks, rather wide, anteriorly rounded; shell solid, hinge moderately strong; lon. 8; alt. 5·5; diam. 3 mm.

This species is differently shaped, rather more compressed and with a different hinge and pallial sinus from the *E. nitens*. The specimens I have seen are white or brownish and were obtained at Bermuda by Dr. Goode.

Ervilia concentrica Gould.

Shell solid, plump, with a robust hinge; the surface with strong, even, concentric riblets and narrower, even grooves between them; there are few very faint or no radial striæ; the posterior end is slightly the longer and more attenuated, the anterior shorter and higher; pallial sinus narrow, almost angular in front, just reaching the vertical of the beaks; the color is generally white, rarely pinkish or yellowish.

This species is common in moderate depths from Cape Hatteras to Key West and Pensacola, Florida. It is smaller and more lozenge shaped than *E. nitens*. Several specimens from the Mediterranean are in the Jeffreys collection under the name of the young of *E. castanea* or *E. nitens*. It is represented in the Postpliocene of North Creek, Little Sarasota Bay, Florida, by a variety less strongly striated and which seems to form the transition to the Pliocene species.

Ervilia maculosa Dall, n. s.

Shell almost perfectly oval, very thin, compressed, and almost translucent; closely, sharply, finely, concentrically striated without radial striæ; posterior end higher, rounded, longer than the anterior; beaks low and calyculate; hinge very feeble; pallial sinus wide and rounded, falling short of the vertical of the beaks anteriorly; surface mottled with brown streaks and patches on a translucent ground. Lon. 4·5 alt. 2·7 mm.

This quite distinct form was obtained off Cape Lookout, N. Carolina in 22 fathoms by the U. S. Fish Commission. It is recognizable

at once by its very oval, compressed and translucent shell with very fine and sharp concentric groovings. So far I have not found it in the fossil state.

NOTES ON MOLLUSKS OF FLORIDA.

BY JOSEPH WILLCOX.

In THE NAUTILUS for November, 1894, the writer referred to the habits of many species of mollusks which he observed on the west coast of Florida. The present paper has been written in continuation of the same subject.

It is an interesting matter, for personal observation, to witness the persistent and relentless warfare of the molluscan forms upon others of the same family in their quest for food.

In the case of the oyster their enemies are not confined to members of the mollusca. In Florida waters they are preyed upon by numerous enemies which ply their predaceous vocation during the twelve months of the year.

Among the fishes the drum and the sheephead are the chief consumers of the oyster; the former devouring those of moderate size, while the latter confine their attention to the destruction of young oysters.

In the vicinity of the oyster beds nearly all the sheephead fish are found with ragged and freshly-cut lips caused by the sharp edges of the young oysters which they break loose from the clusters. So persistent are the sheephead, in the destruction of the young oysters, that single individuals of the latter are comparatively rare; and the survival of the species, in some localities, is, in a great measure, due to their protective habit of living in clusters.

Coextensive with the destruction of the oyster by the fishes, referred to above, their consumption appears to be as great by their molluscan enemy the *Melongena corona*.

Every oyster bed, on the west coast of Florida, from Cedar Keys to Cape Sable, is infested by these ostræophagi, which persistently prey upon the oysters as the chief article of their diet.

Their method of attack and subsequent destruction, from which there is no escape for the victim, is exceedingly ingenious, and is probably not unaccompanied by some measure of discomfort and even pain on the part of the aggressor.